**Homework 4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Midpoints Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show work on all problems will result in a LaSalle.**

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| 1. Find *NP* if *NQ* = 31.8 cm. | 2. Line *AB* is bisected at point *C*. Find *AC* if *AB* = 56 feet. |
| 3. Find *MF.* | 4. Find *MH*. |
| 5. Find the coordinates of the midpoint of the segment with the given endpoints.   1. *R*(3, 1) and *S*(3, 7) 2. *V*(2, 4) and *W*(6, 6) | 6. Use the given endpoint *Y and* midpoint *M* to find the coordinates of the other endpoint *Z*.   1. *Y*(0, 5), *M*(3, 3) 2. *Y*(–l, –3), *M*(5, 9) |
| 7. Find the midpoint of the segment *QP*. | 8. Points *W*, *X*, *Y*, and *Z* are collinear. *WZ* = 40, *XZ* = 18, and *Y* is the midpoint of *XZ.* What is the length of *XY*?  W X Y Z |
| 9. Your house and the mall are 9.6 miles apart on the same straight road. The movie theater is halfway between your house and the mall, on the same road.   1. Draw and label a sketch to represent this situation. 2. How far is your house from the movie theater? | |

**Mixed Review**

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| 1. What is the slope of the line that goes through points (2, –17) and (4, 6)? | 2. Rewrite the equation in slope-intercept form. |
| 3. Solve for a. | 4. What is the slope of the line –7x + 10 =5y? |
| 5. Find the slope of the line. | 6. Is the point (0, 3) located on the line y = 2x + 3? Justify your response. |
| 7. Solve for q. | 8. Find the slope of the line *JK*.  *J* (1, 1), *K* (0, 5) |
| 9. Is (6, 3) a solution set to the equation y = –x + 3? Justify your response. | 10. Solve for x. |